Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (original) A method for determining a refractive correction for an eye, the method comprising:

measuring an optical error of the eye;

calculating at least one image quality parameter for a selected spatial frequency or range of spatial frequencies, based on the measured optical error of the eye; and

forming a plan for refractive correction of the optical error, based on the calculated image quality parameter.

2. (original) A method as in claim 1, wherein measuring the optical error comprises measuring at least one wavefront aberration with a wavefront of light passing through the optical components of the eye, using a wavefront sensor.

3. (original) A method as in claim 2, wherein the wavefront aberration is measured with the pupil of the eye having a diameter of between about 4 mm and about 6 mm.

4. (original) A method as in claim 1, wherein calculating at least one image quality parameter comprises calculating at least one modulation transfer function.

5. (original) A method as in claim 4, wherein calculating at least one modulation transfer function comprises calculating a plurality of modulation transfer functions corresponding to a plurality of potential refractive corrections.

6. (original) A method as in claim 5, wherein forming a plan for refractive correction comprises selecting one of the potential refractive corrections, wherein the selected

refractive correction corresponds to a highest modulation transfer function of the plurality of modulation functions, at the selected spatial frequency.

7. (original) A method as in claim 5, wherein forming a plan for refractive correction comprises selecting one of the potential refractive corrections, wherein the selected refractive correction corresponds to a largest total volume modulation transfer function of the plurality of modulation functions, over the selected range of spatial frequencies.

8. (original) A method as in claim 5, wherein forming a plan for refractive correction comprises selecting one of the potential refractive corrections, wherein the selected refractive correction corresponds to a highest average modulation transfer function of the plurality of modulation functions, over the selected range of spatial frequencies.

9. (original) A method as in claim 1, wherein calculating at least one image quality parameter comprises calculating at least one modified Strehl ratio.

10. (original) A method as in claim 9, wherein calculating at least one modified Strehl ratio comprises calculating a plurality of modified Strehl ratios corresponding to a plurality of potential refractive corrections within the selected range of spatial frequencies comprising about 0 cycles/degree to about 60 cycles/degree.

11. (original) A method as in claim 10, wherein forming a plan for refractive correction comprises selecting one of the potential refractive corrections, wherein the selected refractive correction corresponds to a highest modified Strehl ratio of the plurality of modified Strehl ratios.

12. (original) A method as in claim 1, wherein the selected spatial frequency comprises about 30 cycles/degree.

13. (original) A method as in claim 1, wherein the selected spatial frequency comprises about 37.5 cycles/degree.

14. (original) A method as in claim 1, wherein the selected spatial frequency comprises about 48 cycles/degree.

15. (original) A method as in claim 1, wherein the selected spatial frequency comprises about 60 cycles/degree.

16. (original) A method as in claim 1, wherein the selected range of spatial frequencies comprises about 0 cycles/degree to about 60 cycles/degree.

17. (original) A method as in claim 1, wherein the selected range of spatial frequencies comprises about 20 cycles/degree to about 60 cycles/degree.

18. (original) A method as in claim 1, wherein the selected range of spatial frequencies comprises about 0 cycles/degree to about 80 cycles/degree.

19. (original) A method as in claim 1, wherein forming a plan for refractive correction comprises calculating an ablation pattern for a corneal tissue of the eye, based at least partly on the calculated image quality parameter.

20. (original) A method as in claim 19, further comprising ablating the corneal tissue of the eye according to the ablation pattern.

21. (original) A system for determining a refractive correction for an eye, the system comprising:

a sensor for measuring an optical error of the eye; and

a processor for generating a refractive correction pattern based at least in part on an image quality parameter for a selected spatial frequency or range of spatial frequencies, the image quality parameter being based on the optical error.

22. (original) A system as in claim 21, wherein the sensor comprises a wavefront sensor.

23. (original) A system as in claim 21, wherein the image quality parameter comprises at least one modulation transfer function.

24. (original) A system as in claim 21, wherein the image quality parameter comprises at least one modified Strehl ratio.

25. (original) A system as in claim 24, wherein the modified Strehl ratio comprises a Strehl ratio limited to a range of spatial frequencies of between about 0 cycles/degree and about 60 cycles/degree.

26. (original) A system as in claim 21, wherein the refractive correction pattern comprises an ablation pattern of laser energy for ablation of a corneal tissue of the eye so as to correct the measured optical error.

27. (original) A system as in claim 26, the system further comprising a laser system for directing laser energy onto the corneal tissue of the eye to achieve the generated ablation pattern.

28. (original) A system for correcting an optical error of an eye, the system comprising:

a sensor for measuring the optical error of the eye;

a processor for generating an ablation pattern of laser energy for ablation of a corneal tissue of the eye so as to correct the measured optical error, the ablation pattern based at least in part on an image quality parameter for a selected spatial frequency or range of spatial frequencies, the image quality parameter being based on the optical error; and

a laser system for directing laser energy onto the corneal tissue of the eye to achieve the generated ablation pattern.

29. (original) A device for determining a refractive correction for an eye, the device comprising a software module for processing at least one measurement of the eye to provide the refractive correction of the eye.

30. (original) A device as in claim 29, wherein the at least one measurement comprises at least one wavefront measurement.

31. (original) A device as in claim 29, wherein the software module calculates at least one modulation transfer function, based on the at least one measurement.